

AMENDMENTS TO THE SPECIFICATION

In the Title:

Please amend the title as follows:

DATA PROCESSING DEVICE, DATA PROCESSING METHOD, AND DATA
PROCESSING PROGRAM FOR RECOGNIZING CHARACTERS IN A URL

Using paragraph numbering in the specification as filed, on page 13, amend paragraphs [0031] through [0034] as follows:

[0031] Fig. 11 is a flowchart showing the steps of image processing for the scanner [[13]] according to the third embodiment.

[0032] Fig. 12 is a diagram showing an example error message screen to be displayed on the operating panel unit 125 of the scanner [[13]] according to the third embodiment when the document image fails to match with the Web page image.

[0033] Fig. 13 is a flowchart showing the steps of image processing for the digital copying machine [[14]] according to the fourth embodiment of the present invention.

[0034] Fig. 14 is a diagram showing an example error message screen to be displayed on the operating panel unit 115 of the digital copying machine [[14]] according to the fourth embodiment when the document image fails to match with the Web page image.

On page 14, amend paragraphs [0035] through [0040] as follows:

[0035] Fig. 15 is a diagram showing another example error message screen to be displayed on the operating panel unit 115 of the digital copying machine [[14]] according to the fourth embodiment when the document image fails to match with the Web page image.

[0036] Fig. 16 is a flowchart showing the steps of image processing for the scanner [[15]] according to the fifth embodiment.

[0037] Fig. 17 is a diagram showing an example input screen for setting up the image data output mode to be displayed the operating panel unit 125 of the scanner [[15]] according to the fifth embodiment.

[0038] Fig. 18 is a flowchart showing the steps of image data transmission processing for the scanner [[15]] according to the fifth embodiment.

[0039] Fig. 19 is a diagram showing an example HTML file reception list for the scanner [[15]] according to the fifth embodiment.

[0040] Fig. 20 is a flowchart showing the steps of image processing for the digital copying machine [[16]] according to the sixth embodiment.

On page 14-15, amend paragraph [0043] as follows:

[0043] Fig. 23 is a flowchart showing the steps of image processing for the digital copying machine [[17]] according to the seventh embodiment of the present invention.

On pages 23-24, amend paragraphs [0066]-[0067] as follows:

[0066] Fig. 11 is a flowchart showing the steps of image processing for the scanner [[13]] according to the third embodiment of the present invention. The scanner [[13]] according to this embodiment has a constitution similar to that of the scanner 12 according to the second embodiment, and is connected to the Web server 20 via the communication network 30 and to a printer 40 via a local interface respectively same as in the case of the scanner 12. In Fig. 11, the scanner [[13]] stands by until it receives the user's startup instruction (S301). The user sets a document, on which a Web page is printed, to a specified position of the document table, sets up necessary copying conditions from the operating panel 125 and presses the startup key.

[0067] Upon receiving the startup instruction from the user (S301: Yes), the scanner [[13]] obtains the image data by scanning the document (S302), and stores the obtained document image data to the hard disk 124 (S303).

On pages 26-28, amend paragraphs [0072]-[0073] as follows:

[0072] On the other hand, if it is judged that the two images do not match with each other as a result of the comparison of the document image data with the Web page image data (S314: No), a message screen 64 notifying that the two image data do not match with each other is displayed on an operating panel unit 215 as shown in Fig. 12 (S316), and it stands by until the user enters an

instruction specifying the image data to be outputted (S317: No). The user enters an instruction whether the document image data or the Web page image data to be outputted by pressing a virtual button on the message screen 64. When it receives from the user the input that specifies the image data to be outputted (S317: Yes), the scanner [[13]] transmits the image data specified by the user to other equipment such as the printer 40 via the local interface 217 or the network interface 218 (S318).

[0073] Fig. 13 is a flowchart showing the steps of image processing for a digital copying machine [[14]], an image-processing device according to the fourth embodiment of the present invention. The digital copying machine [[14]] according to this embodiment has an identical constitution as that of the digital copying machine 11 according to the first embodiment, and is connected to the Web server 20 via the communication network 30 similar to the digital copying machine 11. The steps of the digital copying machine [[14]] according to this embodiment are different from the steps of the scanner [[13]] according to the third embodiment in: that, if the URL fails to be recognized in the character recognition process after the document image data is scanned and stored in the hard disk, it reads out the document image data from the hard disk 124 and prints it out (S401 through S406 and S407); that, if the URL is recognized, it compares the document image data with the generated Web page data after generating the Web image data, and prints the Web image data if the two images match (S405: Yes through S414: Yes, and S415); and that, if the two images do not match, it prints the image data specified by the instruction input (S414: No through S417: Yes, and S418). The difference is also in that, if the two images do not match in the comparison between the document image data and the Web page data, it displays not only a message that there is a mismatch between the two images, but also the document image data and the Web image data in order to allow the user to enter an instruction for the output image as a screen 65 shown in Fig. 14 (S416 and S417). This enables the user to specify the output image by actually comparing the document image data and the Web image data. It is also possible to constitute in this case in such a way as to display a message screen 66 as shown in Fig. 15 in order to allow the user to print both the document image data and the Web page image data. It is also possible to constitute in such a way as to allow the user to specify as the printing method either the two single sided sheets, 2-in-1 (a method of arranging the two pages of image on a single page

output data), or double sided printing method. It goes without saying that such a display is applicable to the scanner [[13]] according to the third embodiment.

On page 29, amend paragraph [0075] as follows:

[0075] Fig. 17 is a diagram showing an example input screen for setting up the image data output mode to be displayed the touch panel of the operating panel unit 125 of the scanner of the fifth embodiment [[15]]. The scanner [[15]] according to this embodiment has four kinds of image data output mode, i.e., the “Document Image” mode, “Latest Image” mode, “Image Quality Prioritizing” mode, and “Speed Prioritizing” mode. With reference to a document, which is a printout of a Web page, the document image data itself is outputted as is in the “Document Image” mode, and the Web page image data based on the latest HTML file downloaded from the Web server 20 is outputted in the “Latest Image” mode. In the “Image Quality Prioritizing” mode, it naturally outputs the Web page image data obtained from the HTML file, if the HTML file already exists, having been downloaded from the Web page and stored in the hard disk; or the Web page image data obtained from the HTML file newly downloaded from the Web page, if the corresponding HTML file does not exist, thus prioritizing the image quality by means of outputting the image data having a better image quality than the document image data, using the image data obtained from the HTML file. In the “Speed Prioritizing” mode, it outputs the Web page image data obtained from the HTML file, if the HTML file already exists, having been downloaded from the Web page and stored in the hard disk; or the document image data, if the corresponding HTML file does not exist, thus prioritizing the speed by avoiding any new downloading of the HTML file from the Web page. In Fig. 17, the setup screen 67 for setting up the image data output mode includes virtual buttons for allowing the user to select the image data output modes, so that the user can set up the desired image data output mode by pressing these buttons.

On pages 30-31, amend paragraph [0077] as follows:

[0077] Fig. 18 is a flowchart showing the steps of image data transmission processing for the scanner [[15]] according to the fifth embodiment. In Fig. 18, if the image data output mode instructed by the user is the “Document Image” mode (S601: Yes), the scanner [[15]] reads out the

document image data stored in the hard disk 124 to the RAM 123 (S602), and transmits the document image data to other equipment such as the printer 40 (S603) via the local interface 127 or the network interface 128. This makes it possible to output a document image data in the “Document Image” mode, which is preferable as it can reproduce a document identical to the original with some additional information, e.g., handwritten notes.

On pages 32-33, amend paragraphs [0080]-[0081] as follows:

[0080] If it succeeds to recognize the URL and the printing date by means of said character recognition process (S605: Yes), it reads the HTML file reception list stored in the hard disk 124 to the RAM 123 and retrieves the HTML that is an HTML file related to said URL and is received later than said printing date, i.e., an HTML file newer than the document, from the HTML file reception list (S607). Fig. 19 is an example HTML file reception list for the scanner [[15]]. The HTML file reception list 71 stores the file name, the URL, the storage directory of the hard disk, and the reception date of the HTML file the scanner [[15]] received from the Web server on the communication network 30. If the HTML file newer than the document is detected from the HTML file list (S608: Yes), it reads out the corresponding HTML file to the RAM 123 from the hard disk 124 according to the storage directory of the HTML file reception list (S609). Next, the obtained HTML file is analyzed (S610), and further reads out the link file from the hard disk 124 to generate the image data of the Web page (S611). The generated Web page image data is transmitted to other equipment such as the printer 40 via the local interface 127 or the network interface 128 (S612).

[0081] On the other hand, if it fails to detect a new HTML file newer than the document from the HTML file reception list (S608: No), the scanner [[15]] transmits the HTML file transfer request to the Web page server 20 related to the Web page specified by the URL recognized in the character recognition step (S604) via the network interface 128 and the communication network 30 (S614). Next, it stands by until it receives the HTML file from the Web server 20 (S615: No). When it receives the HTML file from the Web server 20 via the communication network 30 and the network interface 128 (S615: Yes), it stores the received HTML file in the specified directory of the hard disk 124 (S616), and updates the HTML file reception list. Next, it analyzes the received HTML file (S617), transmits a link file transfer request to the Web server 20, receives the link file,

and generates the image data of the Web page (S618). It transmits the generated Web page image data to other equipment such as the printer 40 via the local interface 127 or the network interface 128 (S619).

On page 36, amend paragraph [0088] as follows:

[0088] Fig. 20 is a flowchart showing the steps of image processing for the digital copying machine [[16]] according to the sixth embodiment. The digital copying machine [[16]] according to this embodiment has an identical constitution as the digital copying machine 11 according to the first embodiment and is connected to the Web server 20 via the communication network 30. In Fig. 20, the digital copying machine [[16]] first stands by until it receives a startup instruction for document scanning from the user (S701: No). The user sets a document, on which a Web page is printed, to a specified position of the document table, sets up other necessary copying conditions from the operating panel 115 and presses the startup key. Upon receiving the startup instruction from the user (S701: Yes), the digital copying machine [[16]] obtains the image data by scanning the document (S702), and stores the obtained document image data to the hard disk 124 (S703).

On page 38, amend paragraph [0090] as follows:

[0090] Unless the obtained document image data is of an N-in-1 document (S705: No), the digital copying machine [[16]] reads out the document image data stored in the hard disk 114 to the RAM 113 (S706), and prints it out after applying to it necessary image processing corresponding to the setup conditions, etc., (S707).

On page 40, amend paragraph [0094] as follows:

[0094] Fig. 23 is a flowchart showing the steps of image processing for the digital copying machine [[17]] according to the seventh embodiment. The digital copying machine [[16]] according to this embodiment has an identical constitution as the digital copying machine 11 according to the first embodiment. Incidentally, a printing unit 117 in the digital copying machine [[17]] is capable of color printing. Moreover, it is connected to the Web server 20 via the communication network 30 same as in the case of the digital copying machine 11. In Fig. 23, the digital copying machine

[[17]] first stands by until it receives a startup instruction for document scanning from the user (S801: No). Upon receiving the startup instruction from the user (S801: Yes), it obtains the image data by scanning the document (S802), and stores the obtained document image data to the hard disk 114 (S803).

On page 41, amend paragraph [0096] as follows:

[0096] If the obtained document image data is in color (S805: No), the digital copying machine [[17]] reads out the document image data stored in the hard disk 114 to the RAM 113 (S806) and prints the obtained document image data (S807).

On page 42, amend paragraph [0099] as follows:

[0099] Fig. 25 is a flowchart showing the steps of image processing for the scanner 18. The steps of image processing for the scanner 18 according to this embodiment are different from those for the digital copying machine [[17]] according to the seventh embodiment in: that, in prior to scanning the document, it displays on the touch panel of the operating panel unit 125 the setup input screen to allow the user to select and set up the printer for outputting the image data (S901) and accepts the setup input for the output printer from the user (S902); and that it transmits the document image data to the output printer (S908 and S909), which is set up by the input reception step for the output printer (S901 and S902), if the document image data is judged to be colored (S907: No) in the monochromatic/color identification step (S906), while, if the document image data is judged to be monochromatic (S907: Yes), it transmits the document image data to said printer (S908 and S909) if said output printer is capable of monochromatic printing only (S910: No), or transmits the Web page image data obtained from the Web server corresponding to the recognized URL (S911 through S917) if said output printer is capable of printing in color (S910: Yes). Thus it is capable of outputting suitable image data depending on whether the output device is capable of color output or monochromatic output only and, in case the output device is capable of outputting in color, automatically identifying whether the document is in color or monochromatic in order to output in color even if the document is monochromatic by using the downloaded Web page image data for a monochromatic document.